

Bird observations around Juba, South Sudan

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Observations ornithologiques dans les environs de Juba, Soudan du Sud. Les résultats sont présentés d'observations ornithologiques réalisées dans les environs de Juba, Soudan du Sud, entre le 12 septembre 2010 et le 1^{er} septembre 2012. Au total, 323 espèces ont été identifiées. Une attention particulière est apportée aux espèces d'intérêt pour la conservation, dont huit ont été recensées, et aux espèces confinées à un certain biome, dont 27 ont été notées, la plupart confinées au biome de la Savane soudano-guinéenne. Des compléments aux données de l'atlas de Nikolaus (1987) sont également présentés.

Summary. The results of bird observations made around Juba, South Sudan, during the period 12 September 2010 to 1 September 2012, are presented. In total, 323 species were identified. Attention is drawn to species of conservation concern, of which eight were recorded, and biome-restricted species, of which 27 were recorded, mostly from the Sudan-Guinea Savanna biome. Additions to atlas data in Nikolaus (1987) are also presented.

As noted by de Bont (2009), there is little recent information on the birds of South Sudan. This is mainly due to the history of violent conflict spanning four decades and an associated lack of security, transport infrastructure and facilities for independent visitors. The country seceded from Sudan on 9 July 2011. Nikolaus' (1987, 1989) publications, based to a considerable extent on his own field work during the 1970s, remain primary references. De Bont's (2009) paper provides substantial new information on birds in a remote area in the far south-east of the country, while some observations made opportunistically by visitors in 2005–11 have been published informally (B. Piot in *Bull. ABC* 13: 108; O. Brauer in *Bull. ABC* 15: 138; B. Piot in *Bull. ABC* 16: 111; B. Piot & E. Leonardi in *Bull. ABC* 18: 107–108).

From 12 September 2010 to 1 September 2012, I lived in South Sudan's capital Juba, Central Equatoria State, working for the UK's Department for International Development (DFID). During much of my assignment I was able to make bird observations around Juba, sometimes in the company of other observers. Here I report on findings from this field work.

Study area

Location

The observations presented here were made within a 50 km radius of my home in central Juba (04°51'N 31°35'E), either within the town, by the White Nile, or along one of the roads out of Juba. All sites visited lie within one-degree (120

× 120 km) squares 4/31 (04°00'N 31°00'E) or 5/31 (05°00'N 31°00'E). For a few species, one or more records from outside this area are also included, where these add to their known status in South Sudan.

Habitat and land use

Juba (c.490 m) lies on the west bank of the White Nile c.127 km north of the border with Uganda. The town extends c.8.5 km north-east and south-west along the river, and 13 km westwards. The built-up area is expanding rapidly, especially to the west and north-west. There is little industry and the local economy is dominated by government and services. Population size is unknown but is estimated to have doubled in five years to 500,000 in 2010 (Overseas Development Institute 2010) and is still increasing. Many of the trees along the roads and in compounds are exotics, notably the abundant Neem *Azadirachta indica*, as well as Papaya *Carica papaya*, *Leucaena* spp., *Eucalyptus* spp., Mango *Mangifera indica* and Teak *Tectona grandis*. Indigenous trees and shrubs include *Acacia* spp., Desert Date *Balanites aegyptica*, *Calotropis procera*, *Sterculia* spp., *Cassia* spp. and the palm *Borassus aethiopicum*. There are no extensive green areas within the town itself. At least one abattoir attracts vultures and other avian scavengers.

North of Juba, along the road towards Terekeka, the landscape within the study area lies below 500 m. It is mainly rather flat or gently undulating and open, with grassland, scrub and trees (Fig. 1) as well as depressions that are dry and heavily grazed (Fig. 2) until the rainy season when



Figure 1. Bushland 18 km north of Juba, South Sudan, January 2012 (M. Mallalieu)

Brousse à 18 km au nord de Juba, Soudan du Sud, janvier 2012 (M. Mallalieu)

Figure 2. Cattle on low-lying land 5 km north of Juba, South Sudan, early April 2012 (M. Mallalieu)

Bétail sur des terres basses à 5 km au nord de Juba, Soudan du Sud, début avril 2012 (M. Mallalieu)

Figure 3. The same area as in Fig. 2, late April 2012 (M. Mallalieu)

La zone de la Fig. 2, fin avril 2012 (M. Mallalieu)

Figure 4. Flooded land 5 km north of Juba, South Sudan, late June 2012 (M. Mallalieu)

Terre inondée à 5 km au nord de Juba, Soudan du Sud, fin juin 2012 (M. Mallalieu)

they are transformed into large marshes (Figs. 3–4). I did not document in detail the natural vegetation, although commoner trees and shrubs include *Acacia* spp., *Balanites aegyptica*, *Sterculia* spp., *Zizyphus* spp. and *Grewia Grewia* spp., with a few large fig trees *Ficus* spp., especially near watercourses.

East of the White Nile, within the study area, the road south-southeast towards Nimule traverses an undulating open landscape of grassland, scrub and small trees, rising to *c.*550 m. *Acacia* and *Zizyphus* spp. are common and there are also many Combretaceae. Closer to the river, the road to Karpeto is low-lying with more cultivation, wetter areas and *Acacia* savannah (Figs. 5–6). I rarely travelled west or south of Juba on the west side of the White Nile and did not document the

habitat types in these areas beyond noting open, bushy landscapes with scattered cultivation and no areas of dense woodland.

There is extensive wood extraction, especially for charcoal-making, along all of the main routes into Juba. Over the two years I was in the capital, there was also a noticeable increase in land under cultivation outside the town, mostly small-scale community activity with crops including sorghum, maize and groundnuts, with a few larger farms. Some communities outside Juba, such as the Mundari, are pastoralists owning large herds of cattle. Most grassland is burnt during the dry season.

Along the banks of the White Nile (Fig. 7) and on its islands there are many Mango trees and much cultivated land. The main island



Figure 5. Bushy grassland at Rejaf, 7 km south-east of Juba, South Sudan, late August 2012 (M. Mallalieu)

Prairie buissonnante à Rejaf, à 7 km au sud-est de Juba, Soudan du Sud, fin août 2012 (M. Mallalieu)

Figure 6. *Acacia*-wooded grassland 5 km south-east of Juba, South Sudan, mid June 2012 (M. Mallalieu)

Savane boisée d'*Acacia* à 5 km au sud-est de Juba, Soudan du Sud, mi-juin 2012 (M. Mallalieu)

Figure 7. White Nile at Juba, South Sudan, late April 2012 (M. Mallalieu)

Le Nil Blanc à Juba, Soudan du Sud, fin avril 2012 (M. Mallalieu)



Sudan-Guinea Savanna biome (Robertson 2001). However, the sides of the *jebel* are being quarried for stone and much of the surrounding land has been occupied for homes and farms. Just outside the study area is Badingilu National Park, c.60 km north-east of Juba in Jonglei State.

Climate

The study region has one long rainy season, from late April to November, with c.1,000 mm of rain per year in 1971–2000. Rainfall tends to be heavy but irregular, with a mean of 148.7 mm and 13 rainy days in July, the month of peak rainfall. July also experiences the lowest temperatures, with a mean low of 21.1°C and an average high of 31.1°C. Temperatures peak in March and early April, just before the rains, with a March mean low of 23.6°C and a mean high of 37.7°C. During the rainy season the dry, burnt land around Juba is transformed into a lush green landscape with some large areas of flooded tall grassland and marshes. Rainfall decreases in November and the dry season has very little rain; the land becomes arid with only a few remaining wet patches, such as in borrow pits by murrum roads.

Methods

The main aim was to record the diversity and seasonality of birds in the study area. This was compromised by limitations on time available for field work, by safety and security considerations, and by access constraints. No field trips outside Juba were made during September–December 2010, May–July 2011 and December 2011. The main periods of absence from South Sudan included most of December 2010, December 2011 and the first three weeks of May 2012. Safety

on the White Nile at Juba, Gondokoro, has remnant *Acacia* ssp. woodland that appears to be better preserved than elsewhere in the region. In places reedbeds and *Papyrus* spp. fringe the river; elsewhere there are vertical earth banks.

One further habitat type is formed by the occasional hills or '*jebels*' that rise out of the otherwise rather flat landscape, including *Jebel Kujur* at the south-west edge of Juba, which reaches 716 m. These *jebels* have rocky outcrops, grasses and scattered trees.

There is one nominally protected area within the region: Juba Game Reserve, which includes *Jebel Kujur*. This site is an Important Bird Area, reportedly harbouring 23 species restricted to the

and security factors, including travel protocols and the risk posed by landmines, constrained movement outside Juba and more or less prevented movements outside the town after dark. In the middle and late rainy season, from July onwards, much of the savannah is covered in dense, tall grass and is hard to work. Marshier areas are impassable. Field work was biased towards easily accessible sites considered safe to visit. Badingilu National Park was not visited as it required an expedition-type approach for which I was unable to find time.

In all, I made 109 field trips involving *c.*450 hours of observations, of which 36 (33%) involved static birdwatching in the grounds of restaurants and hotels on the west bank of the White Nile in Juba; 32 (29%) were along the road north towards Terekeka; 13 (12%) were along the road south-southeast towards Nimule; ten (9%) were to sites on or very close to the east bank of the White Nile; five (5%) were along the Karpeto road, which runs south-southeast just beyond the bridge across the White Nile; and the remaining 13 (12%) were to seven other sites. In addition, I also made opportunistic observations whilst driving around Juba and from my house. On 23–26 April 2011, particularly intensive field work was undertaken north and south-east of Juba in the company of T. Jenner. I have included a few records provided by other, reliable observers. I took several thousand photographs of birds; these were used to resolve the identification of some species. A few poor-quality sound-recordings were made for the same purpose; these have not been lodged in an archive. Evidence of breeding such as display, nest building, copulation and feeding newly fledged young was recorded but intensive efforts to prove breeding were not made.

Results

I observed 323 species listed in Appendix 1 with maximum counts by month. In two cases subspecies are listed separately. Appendix 2 presents details of 36 additions to the relevant one-degree squares compared to Nikolaus (1987). To facilitate comparison with previous lists (e.g. de Bont 2009), sequence and taxonomy follows Dowsett *et al.* (2012), with some corrections of and updates to scientific names. Fuller details of four species new to South Sudan are presented separately (Mallalieu in press).

Species of conservation concern

South Sudan harbours 29 species of conservation concern (BirdLife International 2012). Eight of these were observed in the study area. Three are Endangered (White-backed Vulture *Gyps africanus*, Rüppell's Griffon Vulture *G. rueppellii* and Hooded Vulture *Necrosyrtes monachus*), two Vulnerable (White-headed Vulture *Trigonoceps occipitalis* and Beaudouin's Snake Eagle *Circaetus beaudouini*) and three Near Threatened (Pallid Harrier *Circus macrourus*, Bateleur *Terathopius ecaudatus* and Black-winged Pratincole *Glareola nordmanni*).

Biome-restricted species

Twenty species restricted to the Sudan-Guinea Savanna biome and seven restricted to the Somali-Masai biome were found. No species were recorded that are restricted to other biomes in South Sudan (Sahel, Guinea-Congo forests and Afrotropical Highlands). The total of 20 species from the Sudan-Guinea Savanna biome represents 55% of the total number of species (36) recorded from this biome in South Sudan, while the seven from the Somali-Masai biome represent just 14% of the 49 species recorded for that biome (Nikolaus 1989, Robertson 2001). These results contrast with those of de Bont (2009), whose study area 360 km east-northeast of Juba contained 37 species restricted to the Somali-Masai biome and six restricted to the Sudan-Guinea Savanna biome.

Notes on selected species

The following notes provide details mainly on the species of conservation concern and those for which status was found to be different from that in Nikolaus (1989). Additional species for the relevant one-degree squares (Nikolaus 1987) are listed only in Appendix 2 unless the range extension was large (a gap of at least two one-degree squares). Species of conservation concern are indicated by EN = Endangered, VU = Vulnerable and NT = Near Threatened.

Squacco Heron *Ardeola ralloides*

Recorded in May–July and early September 2012 in seasonal marshland 5 km north of Juba, including at least 50 in breeding plumage on 9 June (Fig. 8). These birds dispersed as feeding conditions became less suitable. It is probable that the species breeds in South Sudan. Nikolaus (1989)

suggested that some birds might oversummer but did not mention possible breeding.

Black Heron *Egretta ardesiaca*

Five present intermittently on marshland 6 km north of Juba on 9 June–15 July 2012 (Fig. 9). Nikolaus (1989) mentions just five previous records for South Sudan.

African Cuckoo Hawk *Aviceda cuculoides*

An adult was observed on Gondokoro island on 25 March 2012. Second record for South Sudan. See Mallalieu (in press) for details.

European Honey Buzzard *Pernis ptilorhynchus*

One north of Juba on 23 April 2011, five c.30 km south-east of Juba on 24 April, and 25 moving north over the east bank of the White Nile at Juba on 29 April 2012, including a flock of 12. Nikolaus (1989) mentions only one record for South Sudan, but de Bont (2009) encountered this species on five occasions during spring migration and on eight occasions in autumn migration.

Bat Hawk *Macheiramphus alcinus*

One at dusk by the White Nile in Juba on 27 August 2012. Nikolaus (1989) gives three records for South Sudan, one of them at Juba. I also observed a Bat Hawk over the White Nile 45 km north-west of Nimule on 11 March 2012, which location is well south of the study area.

Hooded Vulture *Necrosyrtes monachus* EN

Present all year in and around Juba (Fig. 10), roosting in tall trees within the town. Largest numbers near abattoirs. Counts included 60 soaring over Juba on 23 October 2011; 85 over the town's western edge on 7 July 2012; and at least 100 over Juba on 25 August 2012. No nests found. Some evidence of people cutting large trees to discourage Hooded Vultures from roosting in them, but no direct persecution observed. No dead or sick birds were seen. Also regularly observed outside Juba, especially north of the town, but in very small numbers. Outside the study area, at least 150 were at a roost in Rumbek, Lakes State (06°48'N 29°40'E) on 29–30 November 2011, and 20 in Wau, Western Bahr el Ghazal State (07°41'N 28°00'E) on 18–19 April 2011.

White-backed Vulture *Gyps africanus* EN

A total of 18 records of up to six birds, mostly over Juba or over the road north to Terekeka, in the dry season, November–April, but also twice in August and once in September. One at the rubbish dump on the edge of Juba, with Hooded Vultures, on 25 April 2011 (Fig. 11). No evidence of breeding in the area.

Rüppell's Griffon Vulture *Gyps rueppellii* EN

Only four records, of up to four birds, all over or north of Juba. Once, from a light aircraft, I observed extensive white areas on a cliff north-east of Juba. This site may be located at 04°39'20"N 32°03'00"E, on the Juba–Torit road, adjacent to a village called Liria, where P. Winter (*in litt.* 2012) photographed cliff faces covered in white bird droppings, a feature also visible on Google Earth. It is possible that this is a roosting and / or breeding site for the species.

White-headed Vulture *Trigonoceps occipitalis* VU

A total of 17 records of up to seven birds, mainly north of Juba (Figs. 12–13). Noted in January–April, July, August and November, but most records were in the dry season, November–April. No evidence of breeding. Considered 'fairly common' by Nikolaus (1989).

Beaudouin's Snake Eagle *Circaetus beaudouini* VU

Nine records of singles, all along the road north to Terekeka, in the dry season, November–April. This species could be confused with Black-chested Snake Eagle *C. pectoralis* or Short-toed Snake Eagle *C. gallicus*. However, I took many photographs and am confident that these records relate to *C. beaudouini* (Fig. 14). All individuals had pure white underwing-coverts and underparts, apart from some neat pale grey-brown barring on the breast-sides, extending onto the axillaries. The underwing had darkish grey-brown subterminal bands on the remiges and three narrow grey-brown bars on the secondaries; the undertail had three similarly coloured bars. All individuals also had dull medium-brown hoods, with variable paler areas on the chin and foreneck. The upperwing had mid earth-brown coverts and darker, barred remiges. Adult *C. gallicus* has spotted or streaked underparts and dark markings on the underwing-coverts. Some juvenile *C.*



Figure 8. Squacco Heron / Crabier chevelu *Ardeola ralloides*, 6 km north of Juba, South Sudan, 9 June 2012 (M. Mallalieu)

Figure 9. Black Herons / Aigrettes ardoisées *Egretta ardesiaca*, 6 km north of Juba, South Sudan, 9 June 2012 (M. Mallalieu)

Figure 10. Hooded Vulture / Vautour charognard *Necrosyrtes monachus*, Juba, South Sudan, 26 September 2010 (M. Mallalieu)

Figure 11. White-backed Vulture / Vautour africain *Gyps africanus* at rubbish dump, Juba, South Sudan, 25 April 2011 (M. Mallalieu)

Figure 12. Adult White-headed Vulture / Vautour à tête blanche *Trigonoceps occipitalis*, 7 km north of Juba, South Sudan, 3 April 2011 (M. Mallalieu)

Figure 13. Immature White-headed Vulture / Vautour à tête blanche *Trigonoceps occipitalis*, 20 km north of Juba, South Sudan, 17 March 2012 (M. Mallalieu)

gallicus might be as pale as *C. beaudouini*, but they lack the dark subterminal bands on the underwing and typically have rufous-brown head markings (Forsman 1999). Adult *C. pectoralis* has darker and broader barring on the underwing and undertail, as well as a darker hood, upperparts and upperwing, and lacks barring on the underparts. Juvenile and immature *C. pectoralis* show varying amounts of rufous on the underparts (Ferguson-Lees & Christie 2001).

Bateleur *Terathopius ecaudatus* NT

Thirty records of up to four birds, in all months of field work except May. Seen over Juba and from roads north, west and south-east of Juba. Adults and immatures seen (Figs. 15–16) but no direct evidence of breeding.

Pallid Harrier *Circus macrourus* NT

One record: an adult male in open woodland 13 km south-southeast of Juba on 6 March 2011.

Wahlberg's Eagle *Aquila wahlbergi*

Seen frequently, usually alone (Fig. 17). Six along 14 km of road north of Juba on 27 November 2011 was the highest count. Present throughout the dry season but also recorded during the rains, in July–October. One near a possible nest in a large fig *Ficus* tree on Jebel Kujur on 11 August 2012. A pair just east of the White Nile on 18 August 2012. Nikolaus (1989) considers it a non-breeding visitor in December–April, but notes that it might breed in Eastern Equatoria State from Torit (c.100 km south-east of Juba) eastwards.

Eleonora's Falcon *Falco eleonorae*

One c.30 km south-east of Juba along the Nimule road on 24 April 2011. First sighting for South Sudan. See Mallalieu (in press) for details.

African Crane *Crex egregia*

One flushed at a marsh with low forbs, sedges and grasses, and scattered small acacias, 3 km north of Juba on 23 June 2012. Three flushed at the same site on 22 July. On 26 August, when the site had much denser and taller grass, footprints probably of this species were also seen. Breeding possible. Nikolaus (1989) regarded this species as rare, with records from Yei and Juba in July–September.

Figure 14. Adult Beaudouin's Snake Eagle / Circaète de Beaudouin *Circaetus beaudouini*, 20 km north of Juba, South Sudan, 17 March 2012 (M. Mallalieu)

Figure 15. Bateleur / Bateleur des savanes *Terathopius ecaudatus*, 40 km south-east of Juba, South Sudan, 23 April 2011 (Tom Jenner)

Figure 16. Immature Bateleur / Bateleur des savanes *Terathopius ecaudatus*, 15 km west of Juba, South Sudan, 21 April 2012 (M. Mallalieu)

Figure 17. Wahlberg's Eagle / Aigle de Wahlberg *Aquila wahlbergi*, 30 km south-east of Juba, South Sudan, 23 April 2011 (Tom Jenner)

Figure 18. Rock Pratincoles / Glaréoles auréolées *Glareola nuchalis*, White Nile 150 km south of Juba, South Sudan, 11 March 2012 (M. Mallalieu)

Figure 19. White-winged Terns / Guifettes leucoptères *Chlidonias leucopterus* migrating along White Nile, Juba, South Sudan, 29 April 2012 (M. Mallalieu)

Figure 20. Lesser Grey Shrike / Pie-grièche à poitrine rose *Lanius minor*, 15 km south-east of Juba, South Sudan, 14 April 2012 (M. Mallalieu)

Lesser Moorhen *Gallinula angulata*

One flushed from a small pond in light woodland along the Karpeto road 5 km south-east of Juba on 16 June 2012. One in marshland 2.5 km north of Juba on 1 July 2012. Nikolaus (1989) mentions only three locations, all west or south of Juba.

Black-winged Pratincole *Glareola nordmanni* NT

A flock of 41 flew north-east c.15 km north of Juba on 23 April 2011.

Rock Pratincole *Glareola nuchalis*

Up to six in March, April, July and August at the White Nile in Juba, where perhaps resident (Fig. 18). Outside the study area, at least 200 during a rafting trip along 80 km of the White Nile north from Nimule. Clearly common along the White Nile from the Ugandan border at least as far as Juba, yet Nikolaus (1989) mentions only two old records for South Sudan, both from the White Nile, at Nimule and c.70 km north of Juba.

White-winged Tern *Chlidonias leucopterus*

Seen on passage in late August, September and late April. Migration routes are not restricted to the White Nile as birds were seen moving overland well away from there, but the largest counts were of birds moving along the river, e.g.



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63 upriver in two hours from 15:45 hrs on 11 September 2011 and a larger movement of 6,000 in six flocks during three hours from 12:30 hrs on 29 April 2012, the largest flock containing c.2,000 birds (Fig. 19).

Klaas's Cuckoo *Chrysococcyx klaas*

Recorded singing in April, July and August. Nikolaus (1989) considered it a dry-season visitor.

Icterine Warbler *Hippolais icterina*

One c.25 km south-east of Juba on 24 April 2011. First record for South Sudan. See Mallalieu (in press) for details.

Swamp Flycatcher *Muscicapa aquatica*

One in reeds along a channel of the White Nile in Juba on 13 March 2011; this is c.300 km south-east of the nearest record in Nikolaus (1987).

Grey-headed Batis *Batis orientalis* / **Western**

Black-headed Batis *B. (minor) erlangeri*

These species, both known to occur in South Sudan, are difficult to separate. All batises seen had grey crowns; several that were heard only were considered to be *B. orientalis*, after comparing the song with online sound-recordings. Several individuals were photographed, but even after reference to the available literature, could not be ascribed with certainty to one species. According to Nikolaus (1989) both species are 'fairly common' in South Sudan.

Lesser Grey Shrike *Lanius minor*

One 30 km south-east of Juba on 24 April 2011; one 15 km north of Juba on 22 October 2011; 12, including four together, along 15 km of the Nimule road south-east of Juba on 14 April 2012 (Fig. 20); and one 25 km west of Juba on 21 April 2012. Described by Nikolaus (1989) as an 'uncommon to rare... migrant'. De Bont (2009) also recorded this species in April.

Yellow-billed Oxpecker *Buphagus africanus*

Only one seen, 18 km north of Juba, on 12 August 2012. Nikolaus (1989) reports this species as fairly common in association with cattle and game.

Figure 21. Abdim's Storks / Cigognes d'Abdim *Ciconia abdimii* over Juba, South Sudan, 5 November 2011 (M. Mallalieu)

Figure 22. Grasshopper Buzzard / Busautour des sauterelles *Butastur rufipennis*, 6 km south-east of Juba, South Sudan, 29 January 2011 (M. Mallalieu)

Figure 23. Bruce's Green Pigeon / Colombar waalia *Treron waalia*, 6 km north of Juba, South Sudan, 1 September 2012 (M. Mallalieu)

Figure 24. Green-backed Eremomela / Érémomèle grisonnante *Eremomela canescens*, 25 km west of Juba, South Sudan, 19 March 2011 (M. Mallalieu)

Figure 25. Winding Cisticola / Cisticole roussâtre *Cisticola galactotes*, 6 km north of Juba, South Sudan, 24 June 2012 (M. Mallalieu)

Figure 26. Red-pate Cisticola / Cisticole à tête rousse *Cisticola ruficeps*, 10 km north of Juba, South Sudan, 24 June 2012 (M. Mallalieu)

Figure 27. Emin's Shrike / Pie-grièche à dos roux *Lanius gubernator*, 25 km west of Juba, South Sudan, 19 March 2011 (M. Mallalieu)

Figure 28. Piapiac / Piapiac africain *Ptilostomus afer*, Juba, South Sudan, 14 July 2012 (M. Mallalieu)

Figure 29. Bronze-tailed Glossy Starling / Choucador à queue violette *Lamprotornis chalcurus*, 5 km south-east of Juba, South Sudan, 14 July 2012 (M. Mallalieu)

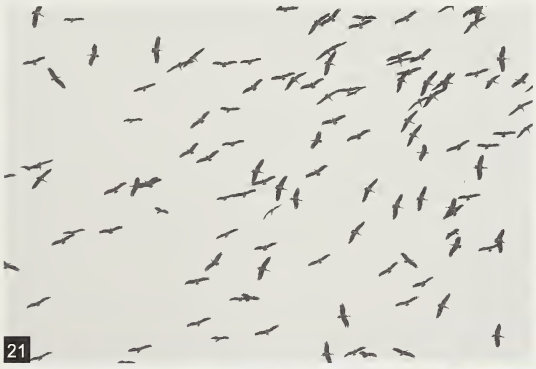
Figure 30. Cardinal Quelea / Travailleur cardinal *Quelea cardinalis*, 8 km south-east of Juba, South Sudan, 4 August 2012 (M. Mallalieu)

White-winged Widowbird *Euplectes albonotatus eques*

Males in breeding plumage observed near Juba on 28 July and 4 August 2012. First records for South Sudan. See Mallalieu (in press) for details.

Indigobird *Vidua* spp.

Besides Village Indigobirds *Vidua chalybeata*, one or more other indigobird species were observed on several occasions in August and September. They had white bills, pale dull pink or purplish-pink legs, brown flight feathers and a bluish-purple gloss to the body feathers. Considering the distribution of host species and bearing in mind the limited data on the distribution of some indigobirds (Payne 2010), these birds could have been Cameroon *V. camerunensis*, Barka *V. larvaticola*, Quailfinch *V. nigeriae*, Jambandu *V. raricola* or Wilson's Indigobirds *V. wilsoni*, with the last-named the most likely based on previous records (Nikolaus 1989) and plumage gloss (Payne 2010). However,



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based on the presence of host species present around Juba, any of these five *Vidua* species could occur. No sound-recordings were made.

Discussion

For the reasons stated above, this study will have understated the number of species that occur regularly in the study area. This is especially true for largely nocturnal species such as owls and nightjars, for some species that inhabit dense grassland and marshes, for those confined to the west and south of Juba, which areas were seldom visited, as well as for others that are highly localised, or occur at low densities. Indications of abundance in Appendix 1 should be treated cautiously as this study did not systematically cover all of the main habitats. For example, although there was only one observation of Red-winged Starling *Onychognathus morio*, made during the single visit to Jebel Kujur, this species may well be resident there. The limited number or absence of field trips in certain months means that Appendix 1 shows no counts for many species that would have been present.

The most serious environmental issue affecting bird populations around Juba is probably extraction of wood for fuel, including through charcoal-making. The increasing human population of Juba will have placed increased pressure on woodland in the south of the country accessible from the town, although the lack of an extensive road network may be a mitigating factor. Nikolaus (1987) includes many species in the two one-degree squares of the study area that were not found by me, and some species considered common by Nikolaus were seldom or never encountered. However, the nature of this study means that it was impossible to form any evidence-based view on the impact of wood extraction on bird populations. Hunting pressure may also have had an impact on some species, although there was no clear evidence for this. The increase in land under cultivation and expansion of the built-up area of Juba will adversely affect some species very locally.

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Appendix 1. Bird species recorded around Juba, South Sudan, 12 September 2010–1 September 2012

Annexe 1. Espèces d'oiseaux observées autour de Juba, Soudan du Sud, 12 septembre 2010–1 septembre 2012

Biome (Robertson *in* Fishpool & Evans 2001):

SG = Restricted to the Sudan-Guinea biome (20 species) / espèces confinées au biome de la Savane soudano-guinéenne (20 espèces)

SM = Restricted to the Somali-Masai biome (7 species) / espèces confinées au biome Somali-Masai (7 espèces)

■ = Evidence of breeding noted / Preuve de reproduction obtenue

Sequence and taxonomy follows Dowsett *et al.* (2012) with a few amendments.

L'ordre et la taxonomie suivent Dowsett *et al.* (2012) avec quelques amendements.

	Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Phalacrocoracidae															
Reed Cormorant	<i>Phalacrocorax africanus</i>	82	45	5	30	10	30	25	15	30	5	6	50		
Anhingidae															
African Darter	<i>Anhinga rufa</i>		-	-	1	-	-	-	-	-	-	-	-		
Pelecanidae															
Pink-backed Pelican	<i>Pelecanus rufescens</i>	3	-	4	2	-	-	-	1	-	-	-	-		
Ardeidae															
Little Bittern	<i>Ixobrychus minutus</i>	-	-	-	-	-	-	-	1	-	-	-	-		x
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	-	1	1	1	-	2	-	-	-	-	-	-		
Squacco Heron	<i>Ardeola ralloides</i>	2	2	3	-	1	50	20	15	-	-	1	2		
Cattle Egret	<i>Bulbulcus ibis</i>	1,230	200	600	500	30	30	30	150	80	60	200	300		
Striated Heron	<i>Butorides striatus</i>	-	1	2	2	2	1	4	15	8	6	-	-		
Black Heron	<i>Egretta ardesiaca</i>	-	-	-	-	-	5	5	-	-	-	-	-		x
Little Egret	<i>Egretta garzetta</i>	1	1	4	20	-	50	10	-	2	-	-	-		
Intermediate Egret	<i>Egretta intermedia</i>	1	-	-	1	-	5	5	-	-	-	-	-		
Great Egret	<i>Egretta alba</i>	1	-	-	30	-	25	2	2	1	-	-	-		
Purple Heron	<i>Ardea purpurea</i>	2	-	3	1	1	9	5	5	10	3	-	3		
Grey Heron	<i>Ardea cinerea</i>	3	1	-	4	-	2	2	-	-	1	2	1		
Black-headed Heron	<i>Ardea melanocephala</i>	5	3	6	12	1	2	-	2	-	-	-	4		
Goliath Heron	<i>Ardea goliath</i>	-	-	1	1	-	1	1	-	-	-	-	-		
Scopidae															
Hamerkop	<i>Scopus umbretta</i>	1	2	6	8	-	1	2	1	6	1	1	-		
Ciconiidae															
Yellow-billed Stork	<i>Mycteria ibis</i>	6	7	15	10	-	2	-	-	-	-	3	-		
African Openbill	<i>Anastomus lamelligerus</i>	10	6	5	350	10	10	20	4	-	-	-	1		
Abdim's Stork	<i>Ciconia abdimii</i>	-	-	14	1,000	-	-	-	-	-	-	450	-		
Woolly-necked Stork	<i>Ciconia episcopus</i>	-	-	2	6	-	-	-	-	-	-	-	-		x
White Stork	<i>Ciconia ciconia</i>	-	-	-	-	-	-	-	-	-	3	-	-		x
Saddle-billed Stork	<i>Ephippiorhynchus senegalensis</i>	-	-	-	2	-	-	2	-	2	-	-	-		x
Marabout Stork	<i>Leptoptilos crumenifer</i>	50	350	100	500	25	20	10	40	30	65	120	-		
Threskiornithidae															
Hadada Ibis	<i>Bostrychia hagedash</i>	2	2	2	10	1	6	2	6	1	-	-	4		
Sacred Ibis	<i>Threskiornis aethiopicus</i>	92	15	110	30	20	10	15	4	-	-	3	-		
Eurasian Spoonbill	<i>Platalea leucorodia</i>	-	-	1	-	-	-	-	-	-	-	-	-		x
African Spoonbill	<i>Platalea alba</i>	-	-	6	1	-	2	4	-	-	-	-	-		
Anatidae															

		Biome												First and last dates for Palearctic migrants	Fewer than five records	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Fulvous Whistling Duck	<i>Dendrocygna bicolor</i>	-	-	60	-	-	-	-	-	-	-	-	-			
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	11	2	10	25	-	60	50	15	5	10	-	45			
Spur-winged Goose	<i>Plectropterus gambensis</i>	-	-	15	200	-	100	100	20	-	-	-	-			
Comb Duck	<i>Sarkidiornis melanotos</i>	12	2	300	300	-	25	25	2	-	-	-	-			
Accipitridae																
Osprey	<i>Pandion haliaetus</i>	-	-	1	-	-	-	-	-	1	-	-	-		x	
African Cuckoo Hawk	<i>Aviceda cuculoides</i>	-	-	1	-	-	-	-	-	-	-	-	-		x	
European Honey Buzzard	<i>Pernis apivorus</i>	-	-	-	25	-	-	-	-	-	-	-	-	- / 29 Apr		
Bat Hawk	<i>Macheiramphus alcinus</i>	-	-	-	-	-	-	-	1	-	-	-	-		x	
Black-shouldered Kite	<i>Elanus caeruleus</i>	2	2	3	2	1	1	1	1	1	2	1	-		x	
Black Kite	<i>Milvus migrans migrans</i>	-	-	1?	1?	-	-	-	-	-	-	-	-		x	
Yellow-billed Kite	<i>Milvus migrans parasitus</i>	100	100	50	400	-	15	10	4	1	60	200	-			
African Fish Eagle	<i>Haliaeetus vocifer</i>	-	-	-	2	-	1	-	1	1	-	-	-			
Hooded Vulture	<i>Necrosyrtes monachus</i>	5	15	15	5	5	30	85	100	15	60	30	-			
White-backed Vulture	<i>Gyps africanus</i>	5	6	3	6	-	-	-	3	1	-	2	-			
Rüppell's Vulture	<i>Gyps rueppellii</i>	-	1	-	4	-	-	-	2	-	-	-	-		x	
White-headed Vulture	<i>Trigonoceps occipitalis</i>	2	7	1	2	-	-	3	2	-	-	1	-			
Beaudouin's Snake Eagle	<i>Circaetus beaudouini</i>	1	1	1	1	-	-	-	-	-	-	1	-			
Brown Snake Eagle	<i>Circaetus cinereus</i>	-	-	1	1	-	-	-	1	-	-	-	-		x	
Western Banded Snake Eagle	<i>Circaetus cinerascens</i>	-	-	1	1	-	1	-	1	-	-	-	-			
Bateleur	<i>Terathopius ecaudatus</i>	1	1	4	20	-	1	1	3	1	3	1	-			
African Harrier Hawk	<i>Polyboroides typus</i>	-	-	1	4	-	-	1	1	1	-	-	-			
Pallid Harrier	<i>Circus macrourus</i>	-	-	1	-	-	-	-	-	-	-	-	-			
Montagu's Harrier	<i>Circus pygargus</i>	1	-	-	-	-	-	-	-	-	-	-	-		x	
Western Marsh Harrier	<i>Circus aeruginosus</i>	5	1	3	1	-	-	-	-	-	-	-	1	11 Dec / 8 Apr		
Gabar Goshawk	<i>Micronisus gabar</i>	2	2	2	2	-	-	1	-	1	-	-	-			
Dark Chanting Goshawk	<i>Melierax metabates</i>	10	4	4	8	-	5	4	15	5	8	4	1			
Shikra	<i>Accipiter badius</i>	2	2	2	2	2	1	1	1	1	1	1	2			
Grasshopper Buzzard	<i>Butastur rufipennis</i>	8	8	8	30	-	-	-	-	1	-	5	-			
Common Buzzard	<i>Buteo buteo vulpinus</i>	1	2	5	15	-	-	-	-	1	2	2	1	30 Sep / 24 Apr		
Long-legged Buzzard	<i>Buteo rufinus</i>	-	-	-	-	-	-	-	-	-	-	-	2		x	
Red-necked Buzzard	<i>Buteo auguralis</i>	-	-	-	1	-	-	-	-	-	-	-	-		x	
Tawny Eagle	<i>Aquila rapax</i>	-	2	1	4	-	-	-	-	-	1	1	-			
Steppe Eagle	<i>Aquila nipalensis</i>	2	30	5	5	-	-	-	-	-	-	-	-	- / 24 Apr		
Wahlberg's Eagle	<i>Aquila wahlbergi</i>	2	2	-	3	-	-	1	2	2	1	6	-			
African Hawk Eagle	<i>Hieraaetus spilogaster</i>	-	-	-	1	-	-	-	-	-	-	-	-		x	
Booted Eagle	<i>Hieraaetus pennatus</i>	1	1	-	-	-	-	-	-	-	1	-	-		x	
Long-crested Eagle	<i>Lophaeetus occipitalis</i>	1	2	2	2	-	2	2	3	2	2	1	1			
Falconidae																
Common Kestrel	<i>Falco tinnunculus rufescens</i>	-	-	1	-	-	-	-	2	-	1	-	-			
Common (Eurasian) Kestrel	<i>Falco t. tinnunculus</i>	2	3	3	1	-	-	-	-	-	-	-	-	- / 14 Apr		
Fox Kestrel	<i>Falco alopex</i>	SG	-	-	3	-	-	-	-	-	-	-	-		x	
Grey Kestrel	<i>Falco ardosiaceus</i>	1	1	1	3	1	-	-	2	3	1	1	-			
Red-necked Falcon	<i>Falco chicquera</i>	4	2	4	1	1	2	1	3	2	3	1	1			

		Biome												First and last dates for Palearctic migrants	Fewer than five records
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Eleonora's Falcon	<i>Falco eleonorae</i>	-	-	-	1	-	-	-	-	-	-	-	-		x
Eurasian Hobby	<i>Falco subbuteo</i>	-	-	-	1	-	-	-	-	-	1	-	-	15 Oct / 28 Apr	
Lanner Falcon	<i>Falco biarmicus</i>	3	-	1	1	-	-	-	-	-	2	2	-		
Peregrine Falcon	<i>Falco peregrinus</i>	-	1	1	1	-	-	-	-	-	-	-	1	5 Dec / 2 Apr	x
Numididae															
Helmeted Guineafowl	<i>Numida meleagris</i>	20	30	25	10	-	20	15	4	2	-	-	-		
Phasianidae															
Crested Francolin	<i>Dendroperdix sephaena</i>	4	-	3	10	-	5	2	5	1	-	-	-		
Rallidae															
African Crane	<i>Crex egregia</i>	-	-	-	-	-	1	3	-	-	-	-	-		x
Black Crane	<i>Amaurornis flavirostris</i>	-	-	2	2	-	-	1	-	-	-	-	-		x
Lesser Moorhen	<i>Gallinula angulata</i>	-	-	-	-	-	1	1	-	-	-	-	-		x
Otididae															
Black-bellied Bustard	<i>Lissotis melanogaster</i>	-	-	-	1	-	1	3	2	-	1	-	-		
Jacanidae															
African Jacana	<i>Actophilornis africanus</i>	2	1	10	5	-	20	10	4	3	-	2	-		
Rostratulidae															
Greater Painted-snipe	<i>Rostratula benghalensis</i>	-	-	-	-	-	1	1	-	-	-	-	-		x
Recurvirostridae															
Black-winged Stilt	<i>Himantopus himantopus</i>	4	5	3	10	-	10	3	-	-	-	-	-		
Burhinidae															
Senegal Thick-knee	<i>Burhinus senegalensis</i>	-	-	3	5	-	-	2	2	-	-	-	1		
Spotted Thick-knee	<i>Burhinus capensis</i>	-	1	2	1	-	-	-	-	-	-	-	-		x
Glareolidae															
Collared Pratincole	<i>Glareola pratincola</i>	-	-	-	-	-	1	-	-	-	-	-	-		x
Black-winged Pratincole	<i>Glareola nordmanni</i>	-	-	-	41	-	-	-	-	-	-	-	-		x
Rock Pratincole	<i>Glareola nuchalis</i>	-	-	2	6	-	-	2	1	-	-	-	-		
Charadriidae															
Little Ringed Plover	<i>Charadrius dubius</i>	-	1	1	-	-	-	-	-	-	-	-	-		x
Common Ringed Plover	<i>Charadrius hiaticula</i>	-	-	-	1	-	-	-	-	-	-	-	-		x
African Wattled Lapwing	<i>Vanellus senegallus</i>	40	30	10	3	-	6	2	2	-	2	3	-		
Black-headed Lapwing	<i>Vanellus tectus</i>	3	7	6	5	-	5	-	6	3	4	4	6		
Spur-winged Plover	<i>Vanellus spinosus</i>	10	1	2	4	-	10	15	2	4	1	2	1		
Long-toed Lapwing	<i>Vanellus crassirostris</i>	-	-	-	-	-	-	4	-	1	-	-	-		x
Scolopacidae															
Temminck's Stint	<i>Calidris temminckii</i>	-	-	-	-	-	-	-	-	-	1	-	-		x
Curlew Sandpiper	<i>Calidris ferruginea</i>	-	-	-	1	-	-	-	-	-	-	-	-		x
Ruff	<i>Philomachus pugnax</i>	-	-	-	40	-	-	-	-	-	-	-	-		x
Common Snipe	<i>Gallinago gallinago</i>	1	-	-	-	-	-	-	-	-	-	-	-		x
Greenshank	<i>Tringa nebularia</i>	-	1	2	2	-	2	1	-	-	1	-	-	oversum- mered	
Green Sandpiper	<i>Tringa ochropus</i>	3	2	6	1	-	-	-	2	-	1	1	1	17 Aug / 23 Apr	

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Wood Sandpiper	<i>Tringa glareola</i>		2	1	4	20	-	-	-	-	-	3	2	2	9 Oct / 28 Apr	
Common Sandpiper	<i>Actitis hypoleucos</i>		20	6	4	3	-	-	2	6	6	15	-	1	29 Jul / 29 Apr	
Laridae																
Common Black-headed Gull	<i>Chroicocephalus ridibundus</i>		-	-	1	-	-	-	-	-	-	-	-	-		x
Lesser Black-backed Gull	<i>Larus fuscus fuscus</i>		-	-	-	-	-	-	-	-	24	-	-	-		x
Sternidae																
Gull-billed Tern	<i>Gelochelidon nilotica</i>		-	-	15	8	-	-	-	-	18	4	-	21		
Whiskered Tern	<i>Chlidonias hybrida</i>		-	-	-	9	-	-	-	-	-	-	-	-		
White-winged Tern	<i>Chlidonias leucopterus</i>		-	-	-	6,000	-	-	-	14	63	-	-	-	26 Aug / 29 Apr	
Pteroclididae																
Four-banded Sandgrouse	<i>Pterocles quadricinctus</i>		-	-	2	-	-	-	-	-	-	-	-	-		
Columbidae																
Bruce's Green Pigeon	<i>Treron waalia</i>		4	15	6	2	3	1	15	15	15	4	2	-		
Black-billed Wood Dove	<i>Turtur abyssinicus</i>		15	10	50	50	5	20	5	30	20	10	5	1		
Namaqua Dove	<i>Oena capensis</i>		5	20	30	4	-	-	-	5	2	6	1	-		
African Mourning Dove	<i>Streptopelia decipiens</i>		15	50	100	30	-	20	25	20	15	10	5	20		
Vinaceous Dove	<i>Streptopelia vinacea</i>		100	50	50	20	-	30	40	20	60	25	10	-		
Laughing Dove	<i>Streptopelia senegalensis</i>		-	30	6	-	-	-	1	5	-	-	-	-		
Psittacidae																
Meyer's Parrot	<i>Poicephalus meyeri</i>		-	-	2	-	-	-	-	-	2	-	-	-		
Rose-ringed Parakeet	<i>Psittacula krameri</i>		1	-	2	6	-	4	10	5	4	6	3	-		
Musophagidae																
White-crested Turaco	<i>Tauraco leucolophus</i>	SG	-	2	-	2	-	-	-	-	-	-	-	-		x
Eastern Grey Plantain-eater	<i>Crinifer zonorus</i>		-	10	3	2	-	2	1	3	-	-	-	-		
Cuculidae																
Jacobin Cuckoo	<i>Clamator jacobinus</i>		-	-	-	1	-	-	2	1	1	1	-	-		
Levaillant's Cuckoo	<i>Clamator levaillantii</i>		-	-	-	2	-	-	-	1	-	-	-	-		x
Red-chested Cuckoo	<i>Cuculus solitarius</i>		-	-	-	4	3	4	2	3	1	1	-	-		
African Cuckoo	<i>Cuculus gularis</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Klaas's Cuckoo	<i>Chrysococcyx klaas</i>		-	-	-	1	-	-	2	2	-	-	-	-		
Dideric Cuckoo	<i>Chrysococcyx caprius</i>		-	-	-	-	-	2	2	4	2	1	-	-		
White-browed Coucal	<i>Centropus superciliosus</i>		1	2	1	-	-	-	1	2	8	4	2	-		
Black Coucal	<i>Centropus grillii</i>		-	-	-	-	-	-	6	2	-	-	-	-		
Senegal Coucal	<i>Centropus senegalensis</i>		2	8	2	10	5	2	2	3	2	1	1	1		
Blue-headed Coucal	<i>Centropus monachus</i>		2	-	-	-	-	2	-	2	-	-	-	-		
Tytonidae																
Barn Owl	<i>Tyto alba</i>		-	-	-	-	-	1	1	-	1	-	-	-		
Strigidae																
African Scops Owl	<i>Otus senegalensis</i>		-	-	-	-	-	-	-	-	-	1	-	-		
Greyish Eagle Owl	<i>Bubo cinerascens</i>		-	-	1	1	1	-	-	1	-	1	-	-		
Caprimulgidae																
Slender-tailed Nightjar	<i>Caprimulgus clarus</i>		-	-	-	2	-	-	-	-	-	-	-	-		x

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Standard-winged Nightjar	<i>Macrodipteryx longipennis</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Pennant-winged Nightjar	<i>Macrodipteryx vexillarius</i>		-	-	-	-	1	-	1	-	-	-	-	-		x
Apodidae																
African Palm Swift	<i>Cypsiurus parvus</i>		10	100	50	50	-	6	20	20	100	20	-	-		
Common Swift	<i>Apus apus</i>		-	1	6	300	-	-	-	50	100	-	-	-	11 Aug / 24 Apr	
White-rumped Swift	<i>Apus caffer</i>		-	-	-	8	-	7	4	15	-	-	-	-		
Little Swift	<i>Apus affinis</i>		-	5	50	50	2	20	50	30	-	-	10	1		
Alpine Swift	<i>Apus melba</i>		-	-	-	30	-	-	-	-	-	10	50	-	30 Oct / 24 Apr	
Coliidae																
Blue-naped Mousebird	<i>Urocolius macrourus</i>		20	30	30	15	15	15	5	15	10	25	-	-		
Speckled Mousebird	<i>Colius striatus</i>		10	30	30	8	5	2	20	5	10	1	6	1		
Alcedinidae																
Grey-headed Kingfisher	<i>Halycon leucocephala</i>		-	5	10	8	-	3	2	3	1	1	-	2		
Woodland Kingfisher	<i>Halycon senegalensis</i>		-	-	1	3		2	1	1	-	-	-	-		
Striped Kingfisher	<i>Halycon cheilicuti</i>		1	1	1	2	-	-	-	-	-	-	-	-		
African Pygmy Kingfisher	<i>Ceyx pictus</i>		-	1	-	4	-	1	1	1	-	-	-	-		
Malachite Kingfisher	<i>Alcedo cristata</i>		-	1	8	-	-	3	2	2	1	2	-	1		
Giant Kingfisher	<i>Megaceryle maxima</i>		1	1	1	-	1	-	1	-	-	1	-	-		
Pied Kingfisher	<i>Ceryle rudis</i>		1	1	6	3	-	8	2	1	2	3	-	1		
Meropidae																
Little Bee-eater	<i>Merops pusillus</i>		-	-	4	-	-	-	-	1	-	-	-	-		
Swallow-tailed Bee-eater	<i>Merops hirundineus</i>		-	1	-	3	1	-	-	1	-	-	-	-		
Red-throated Bee-eater	<i>Merops bullocki</i>	SG	-	-	6	-	-	-	1	5	-	-	-	-		
Little Green Bee-eater	<i>Merops orientalis</i>		1	5	-	-	-	-	-	-	-	-	-	-		x
Blue-cheeked Bee-eater	<i>Merops persicus</i>		-	10	-	100	-	-	-	-	-	-	-	-		
Madagascar Bee-eater	<i>Merops superciliosus</i>		-	-	-	-	-	-	-	-	6	-	-	-		x
European Bee-eater	<i>Merops apiaster</i>		-	-	-	8	-	-	-	-	15	-	-	-	10 Sep / 24 Apr	x
Northern Carmine Bee-eater	<i>Merops nubicus</i>		2	15	6	10	1	10	8	20	20	6	5	-		
Coraciidae																
Rufous-crowned Roller	<i>Coracias naevius</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Abyssinian Roller	<i>Coracias abyssinicus</i>		4	1	2	2	-	-	-	-	-	-	-	-		
Phoeniculidae																
Green Wood-hoopoe	<i>Phoeniculus purpureus</i>		-	-	-	8	-	-	-	-	-	-	-	-		x
Abyssinian Scimitarbill	<i>Rhinopomastus minor</i>	SM	-	1	2	1	-	-	-	-	-	-	-	-		
Black Scimitarbill	<i>Rhinopomastus aterrimus</i>		-	1	1	2	-	1	-	-	-	-	-	-		
Upupidae																
Eurasian Hoopoe	<i>Upupa epops epops</i>		-	1	1	-	-	-	-	-	-	-	-	-		x
Bucerotidae																
Red-billed Hornbill	<i>Tockus erythrorhynchus</i>		2	1	2	10	-	4	1	2	1	-	-	-		
African Grey Hornbill	<i>Tockus nasutus</i>		2	4	6	6	1	3	4	15	8	6	-	-		
Capitonidae																
Yellow-fronted Tinkerbird	<i>Pogoniulus chrysoconus</i>		-	-	-	1	-	-	-	1	-	-	-	-		x

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Red-fronted Barbet	<i>Tricholaema diademata</i>		1	2	1	1	-	1	2	3	-	-	-	-		
White-headed Barbet	<i>Lybius leucocephalus</i>		-	-	-	1	-	-	-	-	-	-	2	-		x
Black-billed Barbet	<i>Lybius guifsobalito</i>		2	1	3	5	1	-	1	1	-	-	-	-		
Black-breasted Barbet	<i>Lybius rolleti</i>	SG	-	2	-	-	-	-	2	-	-	2	-	-		
D'Arnaud's Barbet	<i>Trachyphonus damaudii</i>	SM	10	10	10	10	-	5	4	6	10	4	5	-		
Indicatoridae																
Greater Honeyguide	<i>Indicator indicator</i>		1	1	1	1	-	-	1	-	-	1	-	-		
Lesser Honeyguide	<i>Indicator minor</i>		-	-	2	1	-	1	1	1	1	-	-	-		
Picidae																
Nubian Woodpecker	<i>Campethera nubica</i>		-	3	3	2	1	-	2	2	-	2	-	-		
Cardinal Woodpecker	<i>Dendropicos fuscescens</i>		-	-	-	-	-	-	-	-	2	-	-	-		x
Grey Woodpecker	<i>Dendropicos goetae</i>		1	3	-	1	-	-	2	1	-	-	-	-		
Alaudidae																
Flappet Lark	<i>Mirafra rufocinnamomea</i>		-	-	1	6	3	1	-	8	2	3	-	-		
Sun Lark	<i>Galerida modesta</i>	SG	-	1	-	-	3	-	-	3	1	-	-	-		
Chestnut-backed Sparrow Lark	<i>Eremopterix leucotis</i>		-	-	-	-	-	-	-	-	-	-	-	20		x
Hirundinidae																
Plain Martin	<i>Riparia paludicola</i>		-	-	-	-	-	-	-	2	-	-	-	-		x
Common Sand Martin	<i>Riparia riparia</i>		-	1	100	100	20	-	-	-	25	30	50	-	10 Sep / 14 May	
Rufous-chested Swallow	<i>Cecropis semirufa</i>		2	-	-	6	-	2	2	-	-	-	-	-		
Red-rumped Swallow	<i>Cecropis daurica</i>		-	2	-	-	-	-	5	4	-	-	-	-		x
Wire-tailed Swallow	<i>Hirundo smithii</i>		1	4	1	-	-	-	2	2	2	6	1	-		
Ethiopian Swallow	<i>Hirundo aethiopica</i>		15	1	-	15	-	6	10	6	1	-	-	20		
Barn Swallow	<i>Hirundo rustica</i>		50	100	50	20	1	-	-	1	30	200	10	-	12 Aug / 14 May	
Common House Martin	<i>Delichon urbicum</i>		-	-	-	20	-	-	-	-	-	-	-	-		x
Motacillidae																
Yellow Wagtail	<i>Motacilla flava</i>		125	20	3	2	-	-	-	-	-	5	5	6	15 Oct / 25 Apr	
White Wagtail	<i>Motacilla alba</i>		1	-	-	-	-	-	-	-	-	-	-	-		x
African Pied Wagtail	<i>Motacilla aguimp</i>		1	2	1	3	4	-	4	-	-	-	-	-		
Plain-backed Pipit	<i>Anthus leucophrys</i>		-	-	-	-	-	-	-	1	-	-	-	-		x
Tree Pipit	<i>Anthis trivialis</i>		-	1	-	-	-	-	-	-	-	-	-	-		x
Campephagidae																
Red-shouldered Cuckooshrike	<i>Campephaga phoenicea</i>		-	1	-	1	-	-	1	1	-	1	-	-		
Pycnonotidae																
Yellow-throated Leaflove	<i>Chlorocichla flavicollis</i>		-	-	3	3	-	-	1	-	-	-	-	-		x
Northern Brownbul	<i>Phyllastrephus strepitans</i>		-	4	6	5	-	-	5	-	-	-	-	-		
Common Bulbul	<i>Pycnonotus barbatus</i>		50	10	20	50	20	5	20	15	20	20	4	5		
Turdidae																
Common Nightingale	<i>Luscinia megarhynchos</i>		-	6	-	-	-	-	-	-	-	-	-	-		x
White-browed Robin Chat	<i>Cossypha heuglini</i>		-	2	2	5	-	-	2	1	-	-	1	-		
Spotted Palm Thrush	<i>Cichladusa guttata</i>		1	6	2	1	1	-	1	2	3	-	-	-		
White-browed Scrub Robin	<i>Cercotrichas leucophrys</i>		-	2	2	2	1	-	-	-	-	-	1	-		

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Common Redstart	<i>Phoenicurus phoenicurus</i>		3	2	2	1	-	-	-	-	-	-	-	-	- / 3 Apr	
Whinchat	<i>Saxicola rubetra</i>		3	1	2	3	-	-	-	-	-	-	10	4	5 Nov / 24 Apr	
Northern Wheatear	<i>Oenanthe oenanthe</i>		4	3	8	1	-	-	-	-	-	-	-	11	- / 14 Apr	
Isabelline Wheatear	<i>Oenanthe isabellina</i>		1	4	4	-	-	-	-	-	-	1	-	-	22 Oct / 6 Mar	
African Thrush	<i>Turdus pelios</i>		2	8	2	2	-	1	2	1	-	-	-	-		
Sylviidae																
Little Rush Warbler	<i>Bradypterus baboecala</i>		-	-	-	-	-	-	-	1	-	-	-	-		x
Moustached Grass-Warbler	<i>Melocichla mentalis</i>		-	1	1	2	-	3	3	2	1	2	-	-		
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>		-	-	-	-	-	-	-	-	1	1	2	-		x
Lesser Swamp Warbler	<i>Acrocephalus gracilirostris</i>		-	-	-	-	-	-	1	-	-	-	-	-		x
Eastern Olivaceous Warbler	<i>Hippolais pallida</i>		1	4	6	1	-	-	-	-	-	-	3	-	- / 23 Apr	
Icterine Warbler	<i>Hippolais icterina</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Green-backed Eremomela	<i>Eremomela canescens</i>	SG	-	-	2	1	2	-	-	-	-	-	-	-		x
Northern Crombec	<i>Sylvietta brachyura</i>		2	3	3	2	-	-	-	1	-	1	1	-		
Willow Warbler	<i>Phylloscopus trochilus</i>		-	-	1	15	-	-	-	-	-	-	4	-	5 Nov / 24 Apr	
Garden Warbler	<i>Sylvia borin</i>		-	-	-	2	-	-	-	-	-	-	-	-		x
Common Whitethroat	<i>Sylvia communis</i>		2	1	-	-	-	-	-	-	-	-	-	-		x
Cisticolidae																
Red-faced Cisticola	<i>Cisticola erythrops</i>		-	-	-	2	-	-	2	-	-	-	-	-		x
Singing Cisticola	<i>Cisticola cantans</i>		1	-	2	5	4	1	-	2	-	1	-	-		
Rattling Cisticola	<i>Cisticola chiniana</i>		5	6	4	5	-	5	10	15	8	4	5	1		
Winding Cisticola	<i>Cisticola galactotes</i>		2	-	1	1	-	5	10	10	1	1	-	-		
Croaking Cisticola	<i>Cisticola natalensis</i>		-	-	1	3	-	1	3	4	-	-	1	-		
Red-pate Cisticola	<i>Cisticola rupestris</i>	SG	3	-	4	15	3	10	5	10	5	3	3	-		
Short-winged Cisticola	<i>Cisticola brachypterus</i>		-	-	-	-	-	-	-	-	-	-	-	-		
Foxy Cisticola	<i>Cisticola troglodytes</i>	SG	1	3	3	10	-	2	-	6	2	3	-	-		
Zitting Cisticola	<i>Cisticola juncidis</i>		2	-	-	-	-	-	-	3	-	-	-	-		x
Buff-bellied Warbler	<i>Phylloscopus pulchella</i>		4	1	6	6	-	1	1	1	-	-	-	-		
Tawny-flanked Prinia	<i>Prinia subflava</i>		4	5	6	15	3	4	5	10	5	2	2	6		
Red-winged Warbler	<i>Helolais erythropterus</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Green-backed Camaroptera	<i>Camaroptera brachyura</i>		4	4	2	1	-	1	2	1	-	2	-	-		
Muscicapidae																
Northern Black Flycatcher	<i>Melaeornis edoloides</i>		-	-	-	3	-	-	-	-	-	-	-	-		x
Pale Flycatcher	<i>Bradornis pallidus</i>		-	-	-	2	-	-	-	-	-	-	-	-		x
African Grey Flycatcher	<i>Bradornis microrhynchus</i>	SM	1	4	2	3	-	-	-	-	1	-	1	-		
Silverbird	<i>Empidonax semipartitus</i>		1	3	4	5	-	1	3	4	3	4	-	-		
Spotted Flycatcher	<i>Muscicapa striata</i>		-	-	1	4	-	-	-	-	-	2	-	-	15 Oct / 24 Apr	
Swamp Flycatcher	<i>Muscicapa aquatica</i>		-	-	1	-	-	-	-	-	-	-	-	-		x
Monarchidae																
African Paradise Flycatcher	<i>Terpsiphona viridis</i>		-	10	3	2	1	1	1	2	-	-	-	-		
Platysteiridae																
Grey-headed Batis	<i>Batis orientalis</i>		-	-	1	3	-	-	-	2	1	-	1	-		

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Timaliidae																
Brown Babbler	<i>Turdoides plebejus</i>		5	10	6	15	-	-	5	6	2	-	-	-		
Rufous Chatterer	<i>Turdoides rubiginosus</i>	SM	2	10	25	10	-	2	5	5	8	4	-	-		
Paridae																
White-shouldered Black Tit	<i>Parus guineensis</i>		-	-	2	3	-	-	-	-	-	-	-	-		x
Remizidae																
Mouse-coloured Penduline Tit	<i>Anthoscopus musculus</i>	SM	-	-	4	-	-	-	-	-	-	-	-	-		x
Nectariniidae																
Eastern Violet-backed Sunbird	<i>Anthreptes orientalis</i>	SM	1	2	1	3	-	1	-	1	2	-	1	-		
Scarlet-chested Sunbird	<i>Chalcomitra senegalensis</i>		-	2	2	2	-	-	1	-	-	-	-	-		
Beautiful Sunbird	<i>Cinnyris pulchella</i>		4	50	50	15	5	4	5	8	6	5	4	-		
Copper Sunbird	<i>Cinnyris cuprea</i>		-	-	-	1	2	4	4	2	1	1	1	-		
Zosteropidae																
African Yellow White-eye	<i>Zosterops senegalensis</i>		-	5	1	6	2	-	-	3	2	-	2	-		
Laniidae																
Grey-backed Fiscal	<i>Lanius excubitorius</i>		5	30	6	6	5	6	8	10	6	6	5	11		
Lesser Grey Shrike	<i>Lanius minor</i>		-	-	-	12	-	-	-	-	-	1	-	-	22 Oct / 24 Apr	x
Isabelline Shrike	<i>Lanius isabellinus</i>		1	-	-	-	-	-	-	-	-	-	-	-		x
Emin's Shrike	<i>Lanius gubernator</i>	SG	-	-	1	-	-	-	-	-	-	-	-	-		x
Woodchat Shrike	<i>Lanius senator</i>		3	4	6	6	-	-	-	-	-	-	-	-	- / 23 Apr	
Yellow-billed Shrike	<i>Corvinella corvina</i>	SG	-	-	-	10	-	5	2	4	10	-	-	-		
Northern White-crowned Shrike	<i>Eurocephalus rueppelli</i>		-	-	-	-	-	-	-	2	-	-	-	-		x
Malaconotidae																
Grey-headed Bushshrike	<i>Malaconotus blanchoti</i>		-	-	-	1	-	-	-	-	-	-	-	-		x
Sulphur-breasted Bushshrike	<i>Telophorus sulfureopectus</i>		-	1	-	1	-	-	-	-	-	-	-	-		
Marsh Tchagra	<i>Tchagra minutus</i>		-	-	1	-	-	-	-	-	-	-	-	-		x
Black-crowned Tchagra	<i>Tchagra senegalus</i>		6	5	2	6	1	3	2	3	1	-	-	-		
Northern Puffback	<i>Dryoscopus gambensis</i>		-	5	2	1	-	-	-	-	1	-	-	-		
Tropical Boubou	<i>Laniarus aethiopicus</i>		-	-	3	4	-	-	-	6	-	2	-	-		
Black-headed Gonolek	<i>Laniarus erythrogaster</i>		4	15	6	20	-	5	6	10	2	-	-	1		
Brubru	<i>Nilaus afer</i>		-	1	2	-	-	-	-	-	-	-	-	-		x
Prionopidae																
White Helmetshrike	<i>Prionops plumatus</i>		-	1	2	5	-	-	-	-	-	-	-	-		x
Oriolidae																
Eastern Black-headed Oriole	<i>Oriolus larvatus</i>		-	2	-	1	-	-	-	-	-	-	-	-		x
Eurasian Golden Oriole	<i>Oriolus oriolus</i>		-	-	2	-	-	-	-	-	-	-	-	-		x
Dicruridae																
Fork-tailed Drongo	<i>Drongo adsimilis</i>		10	5	10	20	-	5	6	15	10	10	5	-		
Corvidae																
Pied Crow	<i>Corvus albus</i>		-	-	-	-	-	-	-	-	-	-	-	-		
Piapiac	<i>Ptilostomus afer</i>	SG	50	20	5	8	3	-	50	3	3	30	30	-		
Sturnidae																
Red-winged Starling	<i>Onychognathus morio</i>		-	-	-	-	-	-	-	8	-	-	-	-		x

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Purple Glossy Starling	<i>Lamprolornis purpureus</i>	SG	-	-	-	5	-	-	-	-	-	-	-	-		x
Bronze-tailed Glossy Starling	<i>Lamprolornis chalcurus</i>	SG	-	-	-	-	-	-	30	10	-	-	30	-		
Greater Blue-eared Starling	<i>Lamprolornis chalybeus</i>		-	-	-	-	-	-	3	-	-	-	-	-		x
Lesser Blue-eared Starling	<i>Lamprolornis chloropterus</i>		-	-	-	-	50	50	30	50	30	20	-	-		
Rüppell's Glossy Starling	<i>Lamprolornis purpuroptera</i>		3	20	15	20	-	20	6	6	10	8	2	-		
Superb Starling	<i>Lamprolornis superbus</i>		-	10	-	-	-	-	8	15	4	-	-	-		
Violet-backed Starling	<i>Cinnyricinclus leucogaster</i>		-	-	10	-	8	-	40	5	2	-	-	-		
Wattled Starling	<i>Creatophora cinerea</i>		-	500	50	-	-	-	-	-	-	-	-	-		
Yellow-billed Oxpecker	<i>Buphagus africanus</i>		-	-	-	-	-	-	-	1	-	-	-	-		x
Passeridae																
Northern Grey-headed Sparrow	<i>Passer griseus</i>		1	6	2	3	-	2	5	8	10	5	1	-		
House Sparrow	<i>Passer domesticus</i>		-	1	-	-	-	-	2	-	-	-	-	-		x
Chestnut Sparrow	<i>Passer emini</i>		-	1	10	10	-	-	5	30	-	2	-	-		
Bush Petronia	<i>Petronia dentata</i>	SG	-	-	15	6	-	-	1	1	1	2	-	-		
Ploceidae																
White-billed Buffalo Weaver	<i>Bubalornis albirostris</i>		-	30	-	10	-	15	-	15	-	-	-	-		
White-headed Buffalo Weaver	<i>Dinemellia dinemelli</i>	SM	-	-	-	6	-	6	-	1	1	-	-	-		
White-browed Sparrow Weaver	<i>Plocepasser mahali</i>		100	20	10	10	-	25	6	20	15	20	6	-		
Chestnut-crowned Sparrow Weaver	<i>Plocepasser superciliosus</i>	SG	-	-	2	1	-	-	-	-	-	-	-	-		x
Speckle-fronted Weaver	<i>Sporopipes frontalis</i>		4	-	15	5	4	2	-	5	15	1	6	-		
Grey-headed Social Weaver	<i>Pseudonigrita arnaldi</i>		15	10	30	20	-	-	10	10	30	20	-	-		
Little Weaver	<i>Ploceus luteolus</i>		3	1	30	-	-	-	2	4	2	1	-	-		
Spectacled Weaver	<i>Ploceus ocularis</i>		-	1	-	-	-	1	-	-	-	-	-	-		x
Northern Masked Weaver	<i>Ploceus taeniopterus</i>		100	200	100	-	10	15	30	30	100	50	-	-		
Lesser Masked Weaver	<i>Ploceus intermedius</i>		-	5	1	-	-	-	3	-	-	-	-	-		
Vitelline Masked Weaver	<i>Ploceus velatus</i>		-	-	-	-	-	-	2	20	1	-	-	-		
Village Weaver	<i>Ploceus cucullatus</i>		-	2	5	30	-	25	200	100	50	200	-	-		
Grosbeak Weaver	<i>Amblyospiza albifrons</i>		-	-	-	-	2	2	-	2	5	-	-	-		
Cardinal Quelea	<i>Quelea cardinalis</i>		-	-	-	-	-	-	-	5	6	-	-	-		
Red-headed Quelea	<i>Quelea erythrops</i>		-	-	-	-	-	2	15	-	-	-	-	-		
Red-billed Quelea	<i>Quelea quelea</i>		-	-	-	-	-	15	2	-	-	-	-	-		x
Northern Red Bishop	<i>Euplectes franciscanus</i>		20	200	30	200	15	100	100	150	60	20	5	-		
Black-winged Bishop	<i>Euplectes hordeaceus</i>		-	2	30	30	30	30	20	100	30	-	-	-		
Black Bishop	<i>Euplectes gierowii</i>		-	-	-	-	-	2	4	1	-	-	-	-		
Yellow-crowned Bishop	<i>Euplectes afer</i>		-	-	-	-	-	-	20	1	-	-	-	-		x
White-winged Widowbird	<i>Euplectes albonotatus</i>		-	-	-	-	-	-	2	2	-	-	-	-		x
Fan-tailed Widowbird	<i>Euplectes axillaris</i>		-	-	-	-	-	3	40	15	3	4	-	-		
Estrildidae																
Fawn-breasted Waxbill	<i>Estrilda paludicola</i>		-	-	2	20	-	-	20	10	-	-	-	-		
Black-rumped Waxbill	<i>Estrilda troglodytes</i>	SG	50	100	200	60	-	30	30	6	3	-	1	6		
Common Waxbill	<i>Estrilda astrild</i>		-	-	-	-	-	-	-	2	-	-	-	-		x
Red-cheeked Cordon-bleu	<i>Uraeginthus bengalus</i>		15	50	100	50	20	20	15	80	10	10	10	10		
Red-winged Pytilia	<i>Pytilia phoenicoptera</i>	SG	-	-	4	-	-	-	-	-	-	-	-	-		x
Green-winged Pytilia	<i>Pytilia melba</i>		2	1	2	5	-	2	-	2	-	1	1	-		
Red-billed Firefinch	<i>Lagonosticta senegala</i>		1	20	10	20	-	2	3	10	2	-	2	5		

		Biome	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	First and last dates for Palearctic migrants	Fewer than five records
Bar-breasted Firefinch	<i>Lagonosticta rufopicta</i>		-	5	2	6	-	-	-	1	-	-	-	-		x
Black-faced Firefinch	<i>Lagonosticta larvata</i>	SG	-	-	-	4	-	-	-	-	-	-	-	-		x
Black-bellied Firefinch	<i>Lagonosticta rara</i>	SG	-	-	4	4	1	-	-	1	-	-	1	-		
Cut-throat Finch	<i>Amadina facciata</i>		-	8	2	-	-	-	-	8	4	-	1	-		
Black-faced Quailfinch	<i>Ortygospiza atricollis</i>		-	-	-	-	-	-	-	10	-	-	-	-		x
Zebra Waxbill	<i>Amandava subflava</i>		-	-	-	-	-	-	-	15	-	-	-	-		x
Bronze Mannikin	<i>Lonchura cucullata</i>		30	20	20	25	-	-	10	20	-	-	-	-		
Viduidae																
Parasitic Weaver	<i>Anomalospiza imberbis</i>		-	-	-	-	-	1	1	20	-	-	-	-		x
Pin-tailed Whydah	<i>Vidua macroura</i>		1	6	-	1	-	10	5	10	15	2	2	-		
Exclamatory Paradise Whydah	<i>Vidua interjecta</i>	SG	-	-	-	-	-	-	-	-	3	-	-	-		x
Eastern Paradise Whydah	<i>Vidua paradisaea</i>		-	-	-	-	-	-	25	10	6	5	1	-		
Village Indigobird	<i>Vidua chalybeata</i>		-	2	-	-	-	-	1	3	30	-	-	-		
Fringillidae																
White-rumped Seedeater	<i>Serinus leucopygus</i>		1	5	8	1	-	-	-	4	-	6	1	-		
Yellow-fronted Canary	<i>Serinus mozambicus</i>		-	3	-	15	5	-	-	6	4	-	-	-		
Emberizidae																
Brown-rumped Bunting	<i>Emberiza affinis</i>		-	1	5	5	10	-	-	2	1	-	-	-		
Cinnamon-breasted Bunting	<i>Emberiza tahapisi</i>		-	-	-	-	-	-	-	1	-	-	-	-		x

Appendix 2. Additions to the relevant squares in Nikolaus (1987)

Annexe 2. Compléments aux carrés définis par Nikolaus (1987)

Square numbers = degrees north / east (4/31 = 04°00'N 31°00'E). Numéros des carrés = degrés nord / est (4/31 = 04°00'N 31°00'E)

		4/31	5/31			4/31	5/31	
1	Little Bittern	<i>Ixobrychus minutus</i>	x		19	Yellow-throated Leaflove	<i>Chlorocichla flavicollis</i>	x
2	Striated Heron	<i>Butorides striata</i>	x		20	Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	x
3	Black Heron	<i>Egretta ardesiaca</i>	x		21	Icterine Warbler	<i>Hippolais icterina</i>	x
4	African Spoonbill	<i>Platalea alba</i>	x		22	Willow Warbler	<i>Phylloscopus trochilus</i>	x
5	Osprey	<i>Pandion haliaetus</i>	x		23	Red-faced Cisticola	<i>Cisticola erythrops</i>	x
6	African Cuckoo Hawk	<i>Aviceda cuculoides</i>	x		24	Short-winged Cisticola	<i>Cisticola brachypterus</i>	x
7	Brown Snake Eagle	<i>Circaetus cinereus</i>	x		25	Swamp Flycatcher	<i>Muscicapa aquatica</i>	x
8	Long-legged Buzzard	<i>Buteo rufinus</i>	x		26	Grey-headed Batis	<i>Batis orientalis</i>	x
9	Eleonora's Falcon	<i>Falco eleonorae</i>	x		27	Copper Sunbird	<i>Cinnyris cupreus</i>	x
10	Lesser Moorhen	<i>Gallinula angulata</i>	x		28	Lesser Grey Shrike	<i>Lanius minor</i>	x
11	Common Black-headed Gull	<i>Chroicocephalus ridibundus</i>	x		29	House Sparrow	<i>Passer domesticus</i>	x
12	Lesser Black-backed Gull	<i>Larus fuscus</i>	x		30	White-billed Buffalo Weaver	<i>Bubalornis albirostris</i>	x
13	Whiskered Tern	<i>Chlidonias hybrida</i>	x		31	Spectacled Weaver	<i>Ploceus ocularis</i>	x
14	African Cuckoo	<i>Cuculus gularis</i>	x		32	Grosbeak Weaver	<i>Amblyospiza albifrons</i>	x
15	European Bee-eater	<i>Merops apiaster</i>	x		33	Black Bishop	<i>Euplectes gierowii</i>	x
16	Rufous-crowned Roller	<i>Coracias naevius</i>	x		34	White-winged Widowbird	<i>Euplectes albonotatus</i>	x
17	Lesser Honeyguide	<i>Indicator minor</i>	x		35	Red-winged Pytilia	<i>Pytilia phoenicoptera</i>	x
18	Rufous-chested Swallow	<i>Cecropis semirufa</i>	x		36	Brown-rumped Bunting	<i>Emberiza affinis</i>	x